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The Results of the General Medical Scientific-Practical Expedition
To Evenkis National Okrug (Submitted 13 May 1951 at the Annual
Scientific Session of the Krasnoyarsk Medical Institute)

By: Docent Yu. I. Bernadskiy
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THE RESULTS OF THE GENERAL MEDICAL SCIENTIFIC-PRACTICAL EXPEDITION
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Docent Yu. I. Bernadskiy

From the Chair of ~~Military~~ Hospital Surgery (headed by Professor A. M. Dykhno) at the Krasnoyarsk State Medical Institute (Director, Docent P. G. Podzolkov)

The study of regional pathology and organizational-methodological administration of public health in the regions of the Far North is one of the most important objectives of both public health officials and medical institutes. A knowledge of regional pathology helps the public health official to sensibly organize medical-prophylactic aid for various regions, to properly ~~set-up chairs of medicine~~ ^{distribute medical personnel} in them and to shift medical-sanitary institutions. Anti-epidemic, medical-prophylactic, and sanitary-educational work is planned.

The Party and the Government give special attention to the cultural development of the Far North regions, in particular, to the development of public health. One of the numerous manifestations of Stalin's concern over the improvement of medical aid in the national okrugs of the Far North is the equipping and launching in 1950 of a general scientific-practical expedition to the Evenkis and Taymir national okrugs of Krasnoyarsk Kray.

The plan of work for the Evenkis expedition, its staff and budget were determined by the Ministry of Public Health RSFSR. The plan provided for the resolution of the following basic objectives:

study of morbidity of the people in the okrug, medical-prophylactic aid, study of the status and organization of medical aid to the people, cooperation with the local public health officials in improving medical service to the people, increase in the theoretical and practical training of doctors and secondary medical workers, sanitary-educational work among the people.

Supposing that the results of the work of our expedition can be of use in the organization of future expeditions, we shall go over the problems encountered in the preparation of the expedition, its route, the methodology and some results of the medical, sanitary-educational and investigational work.

Evenkis National Okrug, organized in 1930, is located in the Far North of Krasnoyarsk Kray; the okrug center is the small village of Tura.

The climate of the okrug is severely continental and raw. Summers are short. The fall cold sets in at the end of September. In the southern regions, particularly in Tunguska-Chunya the climate is somewhat milder and permits the raising of agricultural crops (vegetables, grains).

The principal inhabitants of Evenkis National Okrug are the Evenki. North of Ilimpiysk Rayon several trading-stations are populated with Yakuts.

The chief occupations of the Evenki are trapping (fur trading), fishing reindeer-raising, and animal-raising. Since ancient times the Evenki have been renowned as hunters of "soft gold" -- sable, polar fox, fox, etc.

Not very long ago the Evenki were nomads living in tribes. With the establishment of the Soviet power in the Far North their way of life changed radically. In 1930 tribe councils were set up among the Evenki; they were later replaced by nomad councils. The latter exist to this day although the Evenki lead an almost settled life. The very simple production unions set up in 1930 were recently changed into kolkhozes, which chiefly handle trapping, reindeer-raising, and fishing. In the southern regions where the climate is somewhat milder agriculture has also been introduced: the Evenki have begun to raise cows, pigs, and chickens; they have gardens and plant cereals. The nomad life is now limited to the territory of the kolkhoz at which brigades of kolkhoz workers -- reindeer-raisers, fishermen, trappers -- live in wooden houses 50-200 kilometers from the trading stations.

Previously the Evenki lived in reindeer tents [chum]. A reindeer tent is cone-shaped. Its base has a diameter of 2.5-3 meters, a height of about 2 meters. The framework is made of thick sticks. On the outside it is covered with birch bark and rags and in the winter this is covered over with reindeer skins. Usually 5-6 persons live in such a tent, sometimes 2 or 3 families. In the middle of the tent a campfire with a cauldron or tea kettle hanging over it burns day and night. The smoke from the fire constantly contaminates the air as there are no special openings through which it can pass out. In the winter the temperature of the air in various places fluctuates considerably; in addition, air constantly enters through chinks and the entrance-way and this fosters colds.

The adults and children settle around the fire smoking pipes. The dogs lie here too. Tobacco smoke and the evaporation ^f from the

animal skins poison the air in the tent.

Today, thanks to the constantly growing housing fund of the kolkhozes and the transition to the settled mode of living, many of the Evenki whom we investigated live in houses.

The resettlement of the Evenki from tents into spacious, clean huts is one of the basic factors in lowering the rate of lung tuberculosis, trachoma, and gastro-intestinal diseases among these people.

The staple foods of the Evenki are reindeer and moose meat, fish reindeer milk, and pine forest game birds. The surplus meat is frozen (in the winter) or jerked (in the summer).

Summer clothing and footwear now does not differ essentially from that of kolkhoz workers in the middle zone of Siberia. In the winter the Evenki, who are usually in the taiga during periods of intense cold when the temperature reaches 40-60 degrees, dress in various kinds of fur clothing (parka, sakui) and footwear (bakari [a kind of moccasin] made of reindeer or elk skins).

Every year public health in Evenkis improves; the budget increases; the network of medical and prophylactic institutions grows. Medical aid has become accessible to the inhabitants of the most remote trading stations even in the trans-polar regions of the okrug. To give an idea of the nature of the growth of public health in the okrug, we shall point out that before the revolution the basic population and absolutely no medical aid and turned to the shamans (village medicine men) for it. At present the okrug has 7 medical districts and 20 surgical-obstetrical regional stations. Three tuberculosis sanatoriums have been established (Tura, Vanavara, Baykit); all three regional centers have consultation for women-and-children.

X-ray and dental offices have been organized so far in Tura and Baykit.

A peculiarity of the work of medical institutions is the necessity of giving aid to brigades of reindeer-herders, trappers, and fishermen in regions very remote from the settlements. With the brigades scattered over such long distances (100-200-300 kilometers), great difficulties are encountered in trying to fulfill this task. A second peculiarity is the fact that the majority of the surgeons on the periphery cannot always provide timely transportation of the critically ill to the regional center for skilled medical aid. Therefore, the development of medical aviation in the okrug (providing for the landing of planes at all trading stations) and the transformation of all remote surgical regional stations into medical districts is the basis of the further fight to make medical aid accessible to the people of the okrug. The medical personnel consist of doctors with various skills. The regional surgeons are quite skilled and are well acquainted with internal surgery.

Our expedition, set up by the Ministry of Public Health, RSFSR, was to have the following staff: the leader, a phthisiologist, roentgenologist, syphilologist, oculist, laboratory technician, and an X-ray technician. It did not provide for a dentist, gynecologist, social worker, surgeon, driver, interpreter, photographer. The Ministry of Public Health RSFSR entrusted the formation of the expedition and its preparation to the Krasnoyarsk Medical Institute and the regional public health department. The expedition had no laboratory technician who knew how to make biochemical and sanitary-hygienic analyses.

The foregone conclusion that the Evenki have venereal diseases was not justified. The syphilologist had the least medical

work of all, while anti-venereal measures were not used. This is a pleasing fact characterizing the cultural growth of the Evenki and the development of anti-venereal aid to the people.

The six-month period established for the expedition was not long enough for the successful fulfillment of the tasks facing the workers, especially if the work of the expedition coincides with the year in which the rivers in Evenkis are shallow. The period for the expedition should be not less than 8-9 months. This makes it possible to study the life of the Evenki during most seasons of the year.

It is always necessary to carefully consider the equipping of the expedition. Our expedition had a pharmacy (24 boxes), a dentist's drill operated by foot-treadle, X-ray apparatus RU-560, equipment for a clinical laboratory, a mobile power station (L-6 engine, alternating current dynamo) and a photographic laboratory.

It would be better to send fuel for the electric power station on ahead by the winter sledge route to the places in which the expedition will work (trading stations). The expedition must have electric wiring, light bulbs, etc. for it will need them for work in its polyclinic in the evenings and during the Arctic nights. The people in the expedition must have guns for hunting and to ward off possible attacks by wild animals.

Our working method in examination and medical treatment of the people consisted of the following. We set up our polyclinic in the local dispensary, hospital, school, club or board of the kolkhoz, depending on their areas. If it was not possible to set aside a separate room, the dentist and the stomatologist shared a room with the oculist. An interpreter was chosen from among the natives. In ad-

dition, we used local medical workers -- doctors, nurses [registered], practical nurses -- to help us in our work. The nurse did the registering, filling the individual cards, while the doctor took turns working with the expedition doctors to get acquainted with methods of diagnosis and treatment used in various special fields. The lack of a steady nurse made the expedition's work difficult because we had to take on new persons to help us in every settlement and again train them to work under the specific conditions of the expedition.

After the card was filled out the person to be examined was weighed, his height and chest girth measured, and a blood sample taken for analysis. Then he was examined by all the doctors in the expedition. If the examination revealed the necessity of further analyses they were made under the special guidance of the doctors. The dental examination was last because there were instances in which the patients refused to undergo further examination due to some painful experiences during the examination and treatment of their teeth.

A mechanic was invited along to take care of the mobile electric power station. However, we think that it is more convenient for the work of the expedition to have a steady (civilian) driver-electrician, a person not provided for when the plans were being made for the expedition. (It is extremely important to sew an oilcloth cover in advance for the electric power station and to get a separate tent for the station).

After finishing the 2-3 day examination of the people to determine who among them was ill, in the evening (from 4-5 to 8-9 o'clock) the doctors held a medical meeting on their fields. If not many people came for their first examination during the day, then the treatment was administered along with the examination. We must men-

tion that the largest turnover was in the dentist's office, especially at the trading stations, which is explained by the poor arrangement for dental help in the okrug.

In all we examined 754 residents (according to the registration data). These were classified according to occupation in the following manner (Table 1).

TABLE 1

<u>Occupation</u>	<u>Total</u>
Kolkhoz	228
School pupils	282
Preschool	117
Housewives	40
Employees	41
Students	37
Others	9

Both the data for the examination and those for treatment were made on an individual medical card (worked out by the Ministry of Public Health USSR) and an individual dental card which we compiled together with Professor V. D. Bantov.

The sanitary-educational work in Evenkis has to be given simultaneously in both the Evenkis and Russian languages. Therefore, in places where the interpreter was literate enough, chats were held in the club in the Evenkis language. In addition, it is necessary beforehand, before leaving for Evenkis, to print the text of the chats on the various subjects in the Evenkis and Russian languages so that they can be read and then distributed to the audience. Having pre-

pared texts for chats on hand eliminates the need for a skilled interpreter, a person not always easy to find.

The sanitary-education work should be conducted visually insofar as possible. The doctor's chat should be on the layman's level and should be accompanied by a visual demonstration.

We held chats with the people individually and en masse during office hours, and in the evenings in the clubs, houses and tents. Individual chats were the most effective. In addition to the chats we used the local press (for sanitary-educational articles) and radio broadcasts. The chief shortcoming was that the articles were not translated into Evenkis. The lack of an epidioscope and equipment for sanitary-educational films made the sanitary-educational work difficult. After setting up the expedition's polyclinic, we installed a sanitary-educational show window. This consisted of popular science articles and drawings taken from magazines. The examination and medical-prophylactic work of individual specialists is shown by the following data (Table 2).

TABLE 2

<u>Specialists</u>	<u>Number Examined</u>
Phthisiologist	2,109
Oculist	2,052
Syphilologist	2,065
Stomatologist	2,071
Laboratory Technician	2,132

In addition to examining the people, the phthisiologist did the following work: anti-tuberculosis inoculations to 32 children,

tuberculosis tests, instruction to 10 doctors on various questions, reports on the anti-tuberculosis work of the medical and surgical conferences, six lectures for the people in the clubs and two on the radio, publication of three articles ("A Doctor's Advice") in local newspapers.

The oculist examined 2,052 persons and had more than one visit with 420; 21 sick persons were operated on in the dispensary; three were treated in the hospital. Instruction was worked out for the Turinsk Okrug Public Health Department on problems of treating trachoma. There were eight chats with doctors from trading stations and regional centers. In addition, there were eleven medical consultations. A report on the present-day status of some problems in ophthalmology was given at the Turinsk Medical Conference. Five reports were made to the people in the clubs and red tents and one by radio.

The doctor of dermatology and syphilology had one visit with 2,065 sick persons and more than one visit with 352 others, chiefly for skin diseases. Eight okrug doctors had a consultation on problems of treating venereal and skin diseases. A report on the present-day method of treating syphilis and gonorrhea was given at the Turinsk Medical Conference. Six lectures were given to the people on sanitary-educational subjects. There were 235 individual chats with patients.

The stomatologist and dentist [indicates two persons but Table 2 mentions only the former and would seem to indicate one person] gave medical aid during the examination and during special hours. 2,071 persons made one visit to the stomatological office and 597 came more than once.

The dentists at the regional centers (Baykit, Tura) received instruction and consultation on various stomatological problems. One report was given for the doctors and one for the surgeons. Two were given to the people. The newspaper Chunskiy kolkhoznik (Vanavara) printed an article on a sanitary-educational subject.

The laboratory technician made 2,349 analyses of 2,162 persons (blood tests, hemoglobin counts, ROE, urinalysis, T.B. sputum tests, smears for gonococci, plasmodia, intestinal worms in the feces, etc.)

Our study of regional pathology was made on the basis of many documents and materials, for example, data from regional bureaus of registration and departments of vital statistics, the archives of the regional departments of public health, hospitals, tuberculosis sanatoriums, dispensaries, regional surgical centers. We studied epidemiological information on the okrug. We investigated kindergartens, boarding schools, schools, stores, dining places. We got acquainted with the material and living conditions of individual kolkhoz families. We studied the budgets of Evenkis kolkhoz workers, using the data of the regional agricultural departments and information on the average annual purchasing power of the inhabitants.

From the results of the work of the Evenkis expedition we can make the following conclusions:

1. Sending general medical expeditions equipped with modern means of diagnosis and therapy is one of the forms of organizational-methodological administration of the work of the medical network in Evenkis and other national okrugs of the Far North which has completely justified itself in practice.

2. The preparation and equipping of an expedition requires great care. The plan for the expedition must be set up beforehand under the leadership of the head of the public health department and the director of the institute, using those who will participate in the expedition to help plan it. The staff of the expedition must be determined not later than 6-8 months before the departure.

3. Those who go on the expedition should meet the following requirements: physical stamina, experience in practical medical work and scientific preparation of materials for handling and treatment, knowledge of how to conduct sanitary-educational work among the people.

4. The decisive moment in planning the work of the expedition is the proper selection of a route. This should be determined by the time of year, available transportation facilities, the nature of the production activity of the kolkhozes at various seasons, etc.

5. It is desirable to combine the work of the expedition and that of the Red tent.

6. The staff of the expedition should, without fail, have a dentist, a hygienist, a medical [registered] nurse, an interpreter, and a driver in addition to the doctors provided by the plan for the 1950 expedition. The laboratory technician should know how to make the basic biochemical analyses and have the necessary reagents for them. The X-ray technician (or other member of the expedition) should know photography.